Export Corn

Corn Grades and Grade Requirements

Corn is divided into three classes: Yellow corn, White Corn, and Mixed corn. There are no subclasses of corn. Each class of corn is divided into five U.S. numerical grades and U.S. Sample grade. Special grades are provided to emphasize the qualities or conditions affecting the value of the corn. These special grades are made a part of the grade designation but do not affect the numerical or Sample grade designation.

U.S. Standards for Corn

| Grade | Minimum test weight per bushel (pounds) | Maximum limits of - | | Broken corn and foreign material (percent) |
| | | Damaged kernels | | |
		Heat-damaged kernels (percent)	Total damaged kernels (percent)	
U.S. No. 1	56.0	0.1	3.0	2.0
U.S. No. 2	54.0	0.2	5.0	3.0
U.S. No. 3	52.0	0.5	7.0	4.0
U.S. No. 4	49.0	1.0	10.0	5.0
U.S. No. 5	46.0	3.0	15.0	7.0
U.S. Sample grade				

U.S. Sample grade is corn that:
(a) Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5; or
(b) Contains stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans, 8 or more cockleburs, 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), or animal filth in excess of 0.20 percent in 1,000 grams; or
(c) Has a musty, sour, or commercially objectionable foreign odor; or
(d) Is heating or otherwise of distinctly low quality.

Definitions

Test weight (lb/bu) is pounds of grain per Winchester bushel (2,150.42 cubic inches) as determined using an approved device. Test weight is determined before the removal of broken corn and foreign material.

Test weight (kg/hl) is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

Moisture is the water content of grain as determined by an approved moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

Broken corn is all matter that passes readily through a 12/64-inch round-hole sieve and over a 6/64-inch round-hole sieve. The percentage of broken corn by itself does not affect the numerical grade.

Foreign material is all matter that passes readily through a 6/64-inch round-hole sieve and all matter other than corn that remains on top of the 12/64-inch round-hole sieve. The percentage of foreign material by itself does not affect the numerical grade.

Broken corn and foreign material is all matter that passes readily through a 12/64-inch sieve, and all matter other than corn that remains in the sieved sample.

Damaged kernels (total) are kernels and pieces of corn kernels that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, germ-damaged, heat-damaged, insect-bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

Heat-damaged kernels are kernels and pieces of corn kernels that are materially discolored by excessive respiration, with dark discoloration extending out of the germ, through the sides, and into the back of the kernel.

Mixed corn is corn that does not meet the color requirements for either of the classes Yellow corn or White corn, and which includes White-capped Yellow corn.

Oil, protein, and starch percentages in corn are determined by an approved near infrared transmittance (NIRT) instrument calibrated to approved methods. Percent corn oil, protein, or starch is reported on a dry matter basis unless other basis is requested. The level of oil, protein, or starch in a sample does not affect the numerical grade.

Table 9. U.S. Corn Exports: Number of lots and quantity exported by class and grade, 2003-2005

Class	Grade	2003		2004		2005	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
Yellow Corn	U.S. No. 1	101	762,681	137	1,146,183	159	1,097,793
	U.S. No. 2	1,043	22,465,854	1,152	25,918,108	999	2,709,322
	U.S. No. 3	601	14,805,318	582	16,225,733	625	16,005,644
	U.S. No. 4	4	13,972	6	27,415	8	44,142
	U.S. No. 5	1	14,988	3	1,276	2	18,841
	U.S. Sample						
	Grade	2	6,423	1	13,676	1	1,670
	Not inspected	1	8,395	1	1,559	--	--
	All lots	1,753	38,077,631	1,882	43,333,950	1,794	39,877,412
White Corn	U.S. No. 1	25	242,857	44	343,421	63	375,117
	U.S. No. 2	23	144,797	31	300,547	37	208,942
	U.S. No. 3	5	13,751	1	2,680	2	14,854
	All lots	53	401,405	76	646,648	102	598,913
All Classes	U.S. No. 1	126	1,005,538	181	1,489,604	222	1,472,910
	U.S. No. 2	1,066	22,610,651	1,183	26,218,655	1,036	22,918,264
	U.S. No. 3	606	14,819,069	583	16,228,413	627	16,020,498
	U.S. No. 4	4	13,972	6	27,415	8	44,142
	U.S. No. 5	1	14,988	3	1,276	2	18,841
	U.S. Sample						
	Grade	2	6,423	1	13,676	1	1,670
	Not inspected	1	8,395	1	1,559	--	--
	All lots	1,806	38,479,036	1,958	43,980,598	1,896	40,476,325

-- = No lots reported in this category.
Not inspected = These lots were sold without grade designation.

Table 10. Summary of export Yellow corn quality, 2003-2005

Factor	Grade	Grade Limit	2003 No. of Lots	Avg.	Low	High	2004 No. of Lots	Avg.	Low	High	2005 No. of Lots	Avg.	Low	High
Test Weight	**U.S. No. 1**	56.0	101	58.0	56.2	60.5	137	58.1	56.1	61.2	159	58.8	56.0	61.5
(lb/bu)	**U.S. No. 2**	54.0	1,043	57.0	54.2	61.9	1,150	57.1	54.2	61.3	999	57.2	54.1	60.6
	U.S. No. 3	52.0	601	57.2	53.1	60.2	582	56.9	53.0	60.7	625	56.9	52.4	61.1
	U.S. No. 4	49.0	4	58.2	57.1	58.9	6	56.1	51.9	57.7	8	57.3	55.0	60.4
	U.S. No. 5	46.0	1	56.2	56.2	56.2	3	56.5	55.6	57.7	2	56.5	55.7	57.2
	U.S. Sample Grade	N/A	2	57.3	56.5	60.3	1	57.6	57.6	57.6	1	57.0	57.0	57.0
	All lots	N/A	1,752	57.1	53.1	61.9	1,879	57.0	51.9	61.3	1,794	57.1	52.4	61.5
Test Weight	**U.S. No. 1**	N/A	101	74.7	72.4	77.9	137	74.9	72.2	78.8	159	75.6	72.1	79.1
(kg/hl)	**U.S. No. 2**	N/A	1,043	73.3	69.7	79.7	1,150	73.5	69.8	78.9	999	73.6	69.6	78.0
	U.S. No. 3	N/A	601	73.6	68.4	77.5	582	73.3	68.3	78.1	625	73.3	67.5	78.7
	U.S. No. 4	N/A	4	74.9	73.5	75.8	6	72.3	66.8	74.3	8	73.8	70.9	77.8
	U.S. No. 5	N/A	1	72.4	72.4	72.4	3	72.8	71.6	74.3	2	72.8	71.7	73.6
	U.S. Sample Grade	N/A	2	73.8	72.7	77.6	1	74.2	74.2	74.2	1	73.3	73.3	73.3
	All lots	N/A	1,752	73.5	68.4	79.7	1,879	73.4	66.8	78.9	1,794	73.5	67.5	79.1
Moisture	**U.S. No. 1**	N/A	101	14.5	12.9	15.5	137	14.4	13.3	14.9	159	14.2	13.2	14.8
	U.S. No. 2	N/A	1,043	14.4	13.0	15.0	1,148	14.3	4.0	15.4	997	14.3	12.5	15.3
	U.S. No. 3	N/A	601	14.5	12.8	15.5	582	14.3	13.5	15.4	624	14.3	13.3	15.9
	U.S. No. 4	N/A	4	14.5	14.1	14.7	6	14.9	14.2	15.4	8	14.2	13.2	14.6
	U.S. No. 5	N/A	1	14.2	14.2	14.2	3	14.6	13.7	14.8	2	14.2	14.1	14.3
	U.S. Sample Grade	N/A	2	14.4	14.3	14.8	1	14.7	14.7	14.7	1	14.8	14.8	14.8
	All lots	N/A	1,752	14.4	12.8	15.5	1,877	14.3	4.0	15.4	1,791	14.3	12.5	15.9
Heat-damaged	**U.S. No. 1**	0.1	101	0.0	0.0	0.0	137	0.0	0.0	0.0	159	0.0	0.0	0.0
Kernels	**U.S. No. 2**	0.2	1,043	0.0	0.0	0.2	1,150	0.0	0.0	0.1	999	0.0	0.0	0.2
	U.S. No. 3	0.5	601	0.0	0.0	0.1	582	0.0	0.0	0.3	625	0.0	0.0	0.3
	U.S. No. 4	1.0	4	0.0	0.0	0.0	6	0.0	0.0	0.1	8	0.0	0.0	0.0
	U.S. No. 5	3.0	1	0.0	0.0	0.0	3	0.0	0.0	0.0	2	0.0	0.0	0.0
	U.S. Sample Grade	N/A	2	0.0	0.0	0.0	1	0.0	0.0	0.0	1	0.1	0.1	0.1
	All lots	N/A	1,752	0.0	0.0	0.2	1,879	0.0	0.0	0.3	1,794	0.0	0.0	0.3
Damaged	**U.S. No. 1**	3.0	101	1.7	0.2	2.9	137	1.8	0.3	3.0	159	1.7	0.2	3.0
Kernels	**U.S. No. 2**	5.0	1,043	2.8	0.0	5.0	1,150	2.2	0.0	4.9	999	3.2	0.0	5.0
(Total)	**U.S. No. 3**	7.0	601	3.0	0.0	6.8	582	2.0	0.0	6.6	625	3.5	0.0	7.0
	U.S. No. 4	10.0	4	2.0	1.1	4.9	6	6.8	3.2	8.1	8	7.1	4.2	9.0
	U.S. No. 5	15.0	1	10.5	10.5	10.5	3	5.1	3.9	12.0	2	9.3	8.8	9.6
	U.S. Sample Grade	N/A	2	4.7	4.5	4.7	1	1.6	1.6	1.6	1	10.3	10.3	10.3
	All lots	N/A	1,752	2.9	0.0	10.5	1,879	2.1	0.0	12.0	1,794	3.3	0.0	10.3

Table 10. Summary of export Yellow corn quality, 2003-2005--Continued

Factor	Grade	Grade Limit	2003 No. of Lots	Avg.	Low	High	2004 No. of Lots	Avg.	Low	High	2005 No. of Lots	Avg.	Low	High
Broken Corn	**U.S. No. 1**	2.0	101	1.7	0.6	2.0	136	1.6	0.6	2.0	159	1.5	0.7	2.0
and Foreign	**U.S. No. 2**	3.0	1,041	2.7	0.7	3.0	1,149	2.6	0.6	3.0	998	2.6	0.7	3.0
Material	**U.S. No. 3**	4.0	599	3.3	1.0	4.0	582	2.9	0.7	4.0	625	2.9	0.8	4.0
	U.S. No. 4	5.0	4	4.3	4.2	4.7	6	3.3	1.4	4.4	8	4.0	1.3	4.6
	U.S. No. 5	7.0	1	3.5	3.5	3.5	3	5.3	3.6	5.6	2	3.4	3.4	3.5
	U.S. Sample													
	Grade	N/A	2	8.5	3.1	9.9	1	18.0	18.0	18.0	1	3.2	3.2	3.2
	All lots	N/A	1,748	2.9	0.6	9.9	1,877	2.7	0.6	18.0	1,793	2.7	0.7	4.6
Broken Corn	**U.S. No. 1**	N/A	1	1.4	1.4	1.4	4	1.2	0.8	1.4	--	--	--	--
	U.S. No. 2	N/A	146	2.1	0.8	2.6	190	1.9	0.7	2.7	146	1.9	1.1	2.7
	U.S. No. 3	N/A	45	2.7	1.7	3.1	136	2.2	0.9	2.9	61	2.6	1.8	3.4
	U.S. No. 4	N/A	1	3.1	3.1	3.1	--	--	--	--	2	2.9	2.9	2.9
	U.S. No. 5	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample													
	Grade	N/A	1	2.5	2.5	2.5	--	--	--	--	--	--	--	--
	All lots	N/A	194	2.3	0.8	3.1	330	2.1	0.7	2.9	209	2.2	1.1	3.4
Foreign	**U.S. No. 1**	N/A	1	0.3	0.3	0.3	4	0.3	0.2	0.5	--	--	--	--
Material	**U.S. No. 2**	N/A	145	0.7	0.4	1.7	189	0.7	0.4	2.1	143	0.7	0.4	1.1
	U.S. No. 3	N/A	44	0.8	0.4	1.0	138	0.8	0.5	3.2	60	0.9	0.6	1.2
	U.S. No. 4	N/A	1	1.6	1.6	1.6	--	--	--	--	2	1.3	1.3	1.3
	U.S. No. 5	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample													
	Grade	N/A	1	0.6	0.6	0.6	--	--	--	--	--	--	--	--
	All lots	N/A	192	0.7	0.3	1.7	331	0.7	0.2	3.2	205	0.8	0.4	1.3

N/A = Does not apply.
-- = No lots reported in this category.

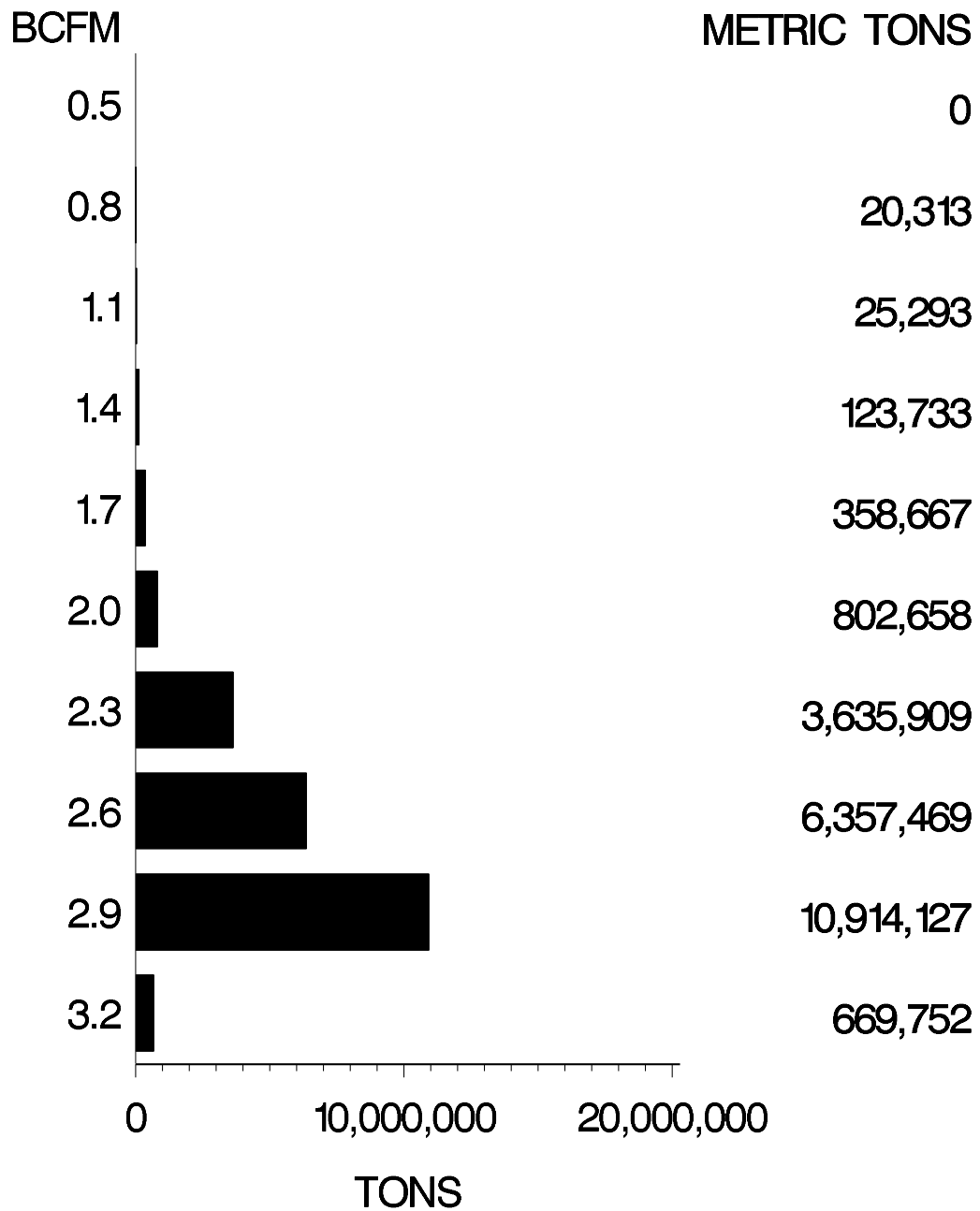**Table 11. Summary of export White corn quality, 2003-2005**

Factor	Grade	Grade Limit	2003 No. of Lots	Avg.	Low	High	2004 No. of Lots	Avg.	Low	High	2005 No. of Lots	Avg.	Low	High
Test Weight	**U.S. No. 1**	56.0	25	59.2	57.7	60.9	44	59.3	58.2	60.9	63	59.8	56.8	61.4
(lb/bu)	**U.S. No. 2**	54.0	23	59.4	58.4	60.1	31	59.6	56.5	60.5	37	60.0	58.3	61.7
	U.S. No. 3	52.0	5	59.1	57.8	59.7	1	60.1	60.1	60.1	2	60.1	60.0	60.3
	All lots	N/A	53	59.2	57.7	60.9	76	59.4	56.5	60.9	102	59.9	56.8	61.7
Test Weight	**U.S. No. 1**	N/A	25	76.2	74.3	78.4	44	76.4	74.9	78.4	63	77.0	73.1	79.0
(kg/hl)	**U.S. No. 2**	N/A	23	76.5	75.2	77.4	31	76.7	72.7	77.9	37	77.3	75.0	79.4
	U.S. No. 3	N/A	5	76.1	74.4	76.8	1	77.3	77.3	77.3	2	77.4	77.2	77.7
	All lots	N/A	53	76.3	74.3	78.4	76	76.5	72.7	78.4	102	77.1	73.1	79.4
Moisture	**U.S. No 1**	N/A	25	14.0	13.7	14.6	44	14.1	12.2	14.7	63	14.1	13.4	14.5
	U.S. No. 2	N/A	23	14.2	12.9	14.6	31	14.1	13.1	14.7	37	14.0	13.6	14.5
	U.S. No. 3	N/A	5	13.8	13.6	14.0	1	14.0	14.0	14.0	2	13.7	13.5	14.0
	All lots	N/A	53	14.0	12.9	14.6	76	14.1	12.2	14.7	102	14.0	13.4	14.5
Heat-damaged	**U.S. No. 1**	0.1	25	0.0	0.0	0.0	44	0.0	0.0	0.0	63	0.0	0.0	0.0
Kernels	**U.S. No. 2**	0.2	23	0.0	0.0	0.1	31	0.0	0.0	0.0	37	0.0	0.0	0.1
	U.S. No. 3	0.5	5	0.0	0.0	0.0	1	0.0	0.0	0.0	2	0.0	0.0	0.0
	All lots	N/A	53	0.0	0.0	0.1	76	0.0	0.0	0.0	102	0.0	0.0	0.1
Damaged	**U.S. No. 1**	3.0	25	2.0	0.5	2.8	44	1.9	0.9	2.9	63	2.0	0.6	3.0
Kernels	**U.S. No. 2**	5.0	23	2.3	0.6	4.3	31	2.3	0.6	4.6	37	2.4	0.4	4.9
(Total)	**U.S. No. 3**	7.0	5	1.4	1.1	1.9	1	5.5	5.5	5.5	2	4.7	3.4	6.4
	All lots	N/A	53	2.1	0.5	4.3	76	2.1	0.6	5.5	102	2.2	0.4	6.4
Broken Corn	**U.S. No. 1**	2.0	25	1.8	0.9	2.0	44	1.8	0.8	2.0	63	1.6	1.0	2.0
and Foreign	**U.S. No. 2**	3.0	23	2.3	1.1	2.9	31	2.2	0.8	2.9	37	2.0	0.6	2.9
Material	**U.S. No. 3**	4.0	5	2.8	1.9	3.1	1	1.8	1.8	1.8	2	2.9	2.0	3.6
	All lots	N/A	53	2.0	0.9	3.1	76	2.0	0.8	2.9	102	1.7	0.6	3.6
Broken Corn	**U.S. No. 1**	N/A	5	1.4	1.1	1.7	12	1.4	1.2	1.6	17	1.3	0.9	1.6
	U.S. No. 2	N/A	1	1.6	1.6	1.6	3	1.8	1.5	2.0	2	2.0	1.9	2.1
	All lots	N/A	6	1.4	1.1	1.7	15	1.5	1.2	2.0	19	1.4	0.9	2.1
Foreign	**U.S. No. 1**	N/A	5	0.4	0.3	0.5	12	0.5	0.3	0.6	17	0.5	0.1	0.6
Material	**U.S. No. 2**	N/A	1	0.5	0.5	0.5	3	0.6	0.4	0.7	2	0.5	0.4	0.7
	All lots	N/A	6	0.4	0.3	0.5	15	0.5	0.3	0.7	19	0.5	0.1	0.7

N/A = Does not apply.
-- = No lots reported in this category.

U.S. CORN EXPORTED, 2005
DISTRIBUTION FOR BCFM — GRADE 2

BCFM	METRIC TONS
0.5	0
0.8	20,313
1.1	25,293
1.4	123,733
1.7	358,667
2.0	802,658
2.3	3,635,909
2.6	6,357,469
2.9	10,914,127
3.2	669,752

TONS: 0   10,000,000   20,000,000

TONS

U.S. CORN EXPORTED, 2005
DISTRIBUTION FOR BCFM — GRADE 3

BCFM	METRIC TONS
0.6	0
1.0	153,313
1.4	862,530
1.8	1,257,179
2.2	1,912,261
2.6	2,353,972
3.0	1,737,661
3.4	3,496,008
3.8	4,117,703
4.2	129,871

TONS

0   5,000,000